

REMARKS

The Examiner is thanked for the courtesy of the interview with the undersigned on July 14, 2005, as reflected in his Interview Summary.

Applicant traverses the rejection of Claims 26-28, 44 and 45 as being unpatentable over Davenport in view of Torzala and Kofoed et al under 35 U.S.C. § 103(a), and request reconsideration.

In light of the foregoing amendments to Claim 44, it should now be clear that the Davenport patent is silent with respect to more than the specifics of the sensor adaptor and the evaluation device. Even if that were not the case, however, the “specifics” of the claimed sensor adaptor and its relationship to the analysis duct would be sufficient to constrain the teachings of Davenport even further. Furthermore, the analysis duct in Claim 44 is not just one of the “specifics” but is important in its own right in terms of its function and association with the mask adapter and the sensor adapter.

To the extent that the Office Action construes the male lever connector 34 as the “mask adapter” and the tube 36 as a “sensor adapter”, it cannot show in Davenport where an analysis duct is connectable with the male luer connector, how such non-present analysis duct is open to outside air and where the claimed sensor and sensor adapter would be arranged relative to the analysis duct which does not exist in the Davenport mask arrangement which at least is intended for patient use such as anesthesia. In reality, however, the Davenport mask

arrangement uses neither an analysis duct as claimed herein nor a sensor adapter as claimed herein, specifics aside.

Unlike the Davenport mask arrangement, the Torzala oxygen regulator control has no relationship to capnography and thus bears no or little relevance to the claimed subject matter herein. The only relationship between the Torzala patent and the present application, and Davenport for that matter, is the inclusion of an oxygen mask in these systems. Applicant has made no claim to invention of an oxygen mask per se but rather a system for determining carbon dioxide content of exhaled air in capnography applications. The Torzala control has no relevance to that objective, instead being directed to a control for an altitude responsive oxygen regulation, i.e., aircraft use. It seems clear on the face of the Torzala patent that only impermissible hindsight has guided the Patent and Trademark Office to use its teachings to modify the unrelated Davenport mask arrangement. Indeed, the sheer and readily apparent complexity of the Torzala control system alone would advertise that its teachings are far afield from the present invention and its objectives. Thus, although, in its broadest sense, Torzala might be a system that determines carbon dioxide content of exhaled air, it is an inapposite mixing apparatus regulating control system in relation to either the Davenport mask arrangement or the present invention.

The Office Action characterizes Torzala in the paragraph bridging pages 2 and 3. It asserts that an interior passage of the carbon dioxide sensor 82

construed apparently as both the sensor and the sensor adaptor is also the analysis duct. Even if that were a reasonable construction of the Torzala patent (which it is not), it would not explain the presence of a separate sensor, sensor adapter and analysis duct as claimed herein, particularly an analysis duct connectable with a mask adapter and the sensor adapter. Notwithstanding the fact that the Torzala patent does not disclose the details of the sensor interior, the Office Action describes the unshown and alleged analysis duct "connected to the mask adapter with a small dead air volume to the air tube in the mask adapter such that the exhaled air is acted upon only by a pressure causing characteristic flow as the air tube and the analysis duct." This description is unsupported.

The Office Action then contends that the analysis duct is always open to outside air at another end thereof. This contention was the subject of much discussion at the interview and remains a point of dispute between the Office and the Applicant. The very complex oxygen regulator control system of Torzala which uses a very large dead volume between the mask and the sensor also uses a carbon dioxide sensor 82 downstream of a mixing chamber 84 that has baffles 84 to mix the expired fluid over several breaths to provide a mean CO₂ sample. A one-way check valve 91 is biased by a spring (unnumbered) to normally close the port and presumably is set to open only after the several breaths have been mixed and sampled. Certainly, the port is not always open to atmosphere as is the case with the mask shown in Fig. 4 of the present application where the duct

through the analysis duct 8 and sensor adapter 7 is not blocked at any time by a valve. That is, the port is not unobstructed. Indeed, the entire purport of the Torzala disclosure (e.g., col. 3, lines 23-28 and col. 5, lines 57-59) is that the port is closed during the collection and sampling operation. In any event, the Torzala system is a very different one from that of the present invention as noted above. Given the need for compactness with a small dead space and equally importantly, precise measurement results as are necessary in capnography evaluation, one of ordinary skill in the art would never have looked to the Torzala system notwithstanding the fact that they show just a few arguably common elements, most notably a mask. Given how Torzala's regulator works for its particular environment, no motivation would have existed to utilize its teachings in Davenport's mask arrangement.

The same can be said for the motivation to use the separate transducer housing 22 of Kofoed. The adapter disclosed in this patent is not intended for a system as used in the present invention where the analysis tube is open to outside air or even the Torzala regulator system where the sample of several breaths is discharged. Instead, the Kofoed adapter is taught as being used in a system which at one end is connected to a tube inserted inside a patient's trachea and the other end is connected to a ventilator. That is, the Kofoed device is part of a ventilator airway adapter, not a capnography system. Impermissible hindsight has again led the Office to erroneously conclude that the teachings of

Kofoed would have suggested their incorporation in the Davenport mask arrangement with or without the hindsight modification based on Torzala.

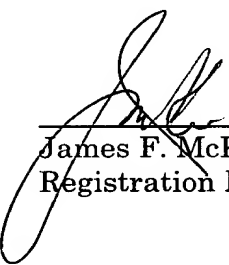
Accordingly, early and favorable action is earnestly solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056151.49519).

Respectfully submitted,

August 16, 2005



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